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EXAMINER

LEE, ANDREW CHUNG CHEUNG

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/541,525 | <b>Applicant(s)</b><br>KUMAZAWA ET AL. |  |
|                              | <b>Examiner</b><br>Andrew C. Lee     | <b>Art Unit</b><br>2476                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-15 is/are pending in the application.
- 4a) Of the above claim(s) 1 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/10/2009</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Claim 1 has been cancelled.
2. Claims 14 and 15 are newly added.
3. Claims 2 – 15 are pending.

### ***Claim Objections***

4. Claims 2, 6 are objected to because of the following informalities:

Regarding claim 2, the clause “capable of” in line 7 is not a positive recitation.

Appropriate correction is required.

Regarding claim 6, the clause “capable of” in line 6 is not a positive recitation.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2, 3, 4, 5, 14, 15, 6, 7, 8, 10, 12, 13, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinohe et al. (6148411) in view of Yamaya et al. (US 20020184387 A1).

**Regarding claim 2**, Ichinohe et al. disclose a routing control method (*Abstract, Fig. 1A, Fig. 1B, col. 6, lines 29 – 60*) comprising: monitoring, by a first router, a status of a connection with an external network and when the connection is to be cancelled,

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transmitting, by the first router, a routing stop message (*"failure of the route....",,,,"supplies a function stop indication"; col. 9, lines 5 – 17, lines 42 – 65*), except notifying a routing stop time, as a time remaining until a stop of a routing function of the first router, to nodes in a local area network to which the first router is connected; calculating, by a second router, a routing capability time required to enable the routing function when the second router is capable of executing the routing function; transmitting, by the second router transmits a routing capability message, notifying the routing capability time, to the nodes in the local area network to which the second router is connected; and switching, by the nodes receiving the routing stop message and the routing capability message, a destination of transmissions from the first router to the second router.

Ichinohe et al. do not disclose explicitly notifying a routing stop time, as a time remaining until a stop of a routing function of the first router, to nodes in a local area network to which the first router is connected; calculating, by a second router, a routing capability time required to enable the routing function when the second router is capable of executing the routing function; transmitting, by the second router transmits a routing capability message, notifying the routing capability time, to the nodes in the local area network to which the second router is connected; and switching, by the nodes receiving the routing stop message and the routing capability message, a destination of transmissions from the first router to the second router.

Yamaya et al. in the same field of endeavor teach notifying a routing stop time, as a time remaining until a stop of a routing function of the first router, to nodes in a local area network to which the first router is connected (*Fig. 8, paras. [0061], [0062]*);

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calculating, by a second router, a routing capability time required to enable the routing function when the second router is capable of executing the routing function (*“the counting of the master down timer of the router 11 expires.....”...“advertisement packet”*; Fig. 9, para. [0066], Fig. 10, para. [0116]- [0118]); transmitting, by the second router transmits a routing capability message, notifying the routing capability time, to the nodes in the local area network to which the second router is connected (*“transmits a transition notification packet.....”*; para. [0150], [0116]); and switching, by the nodes receiving the routing stop message and the routing capability message, a destination of transmissions from the first router to the second router (Fig. 17, para. [0138]).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Ichinohe et al. to include the features of notifying a routing stop time, as a time remaining until a stop of a routing function of the first router, to nodes in a local area network to which the first router is connected; calculating, by a second router, a routing capability time required to enable the routing function when the second router is capable of executing the routing function; transmitting, by the second router transmits a routing capability message, notifying the routing capability time, to the nodes in the local area network to which the second router is connected; and switching, by the nodes receiving the routing stop message and the routing capability message, a destination of transmissions from the first router to the second router as taught by Yamaya et al. One of ordinary skill in the art would be motivated to do so for providing a method for connecting between networks, a virtual router, and a system for connecting between networks by using this virtual router that make it possible to carry out a data forwarding even if a plurality of lines have been

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disconnected due to the occurrence of a trouble on a route among the lines connected to a virtual route (*as suggested by Yamaya et al., see para. [0009]*).

**Regarding claim 3**, Ichinohe et al. do not disclose if the first router receives a further message directed toward the external network after the stop of the routing function of the first router, storing, by the first router, the message directed toward the external network; and after the first router receives the routing capability message from the second router, transfers transferring, by the first router, the stored message to the second router.

Yamaya et al. in the same field of endeavor teach if the first router receives a further message directed toward the external network after the stop of the routing function of the first router, storing, by the first router, the message directed toward the external network; and after the first router receives the routing capability message from the second router, transfers transferring, by the first router, the stored message to the second router (*Fig. 19, paras. [0150] – [0154]*).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Ichinohe et al. to include the features of if the first router receives a further message directed toward the external network after the stop of the routing function of the first router, storing, by the first router, the message directed toward the external network; and after the first router receives the routing capability message from the second router, transfers transferring, by the first router, the stored message to the second router as taught by Yamaya et al. One of ordinary skill in the art would be motivated to do so for providing a method for connecting between networks, a virtual router, and a system for connecting between

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networks by using this virtual router that make it possible to carry out a data forwarding even if a plurality of lines have been disconnected due to the occurrence of a trouble on a route among the lines connected to a virtual route (*as suggested by Yamaya et al., see para. [0009]*).

**Regarding claim 4**, Ichinohe et al. do not disclose wherein after the first router receives the routing capability message, transferring, by the first router, the stored message to the second router after the routing capability time has lapsed.

Yamaya et al. in the same field of endeavor teach wherein after the first router receives the routing capability message, transferring, by the first router, the stored message to the second router after a routing capability time has lapsed (*Fig. 18, paras. [0140] – [0144]*).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Ichinohe et al. to include the features of wherein after the first router receives the routing capability message, transferring, by the first router, the stored message to the second router after a routing capability time has lapsed as taught by Yamaya et al. One of ordinary skill in the art would be motivated to do so for providing a method for connecting between networks, a virtual router, and a system for connecting between networks by using this virtual router that make it possible to carry out a data forwarding even if a plurality of lines have been disconnected due to the occurrence of a trouble on a route among the lines connected to a virtual route (*as suggested by Yamaya et al., see para. [0009]*).

**Regarding claim 5**, Ichinohe et al. do not disclose deciding, by the second router, that the routing function of the first router has stopped if the routing stop time in

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the message received from the first router is equal to or smaller than a predetermined time.

Yamaya et al. in the same field of endeavor teach deciding, by the second router, that the routing function of the first router has stopped if the routing stop time in the message received from the first router is equal to or smaller than a predetermined time (*"maximum three second" as a predetermined time; paras. [0116] – [0117]*).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Ichinohe et al. to include the features of deciding, by the second router, that the routing function of the first router has stopped if the routing stop time in the message received from the first router is equal to or smaller than a predetermined time as taught by Yamaya et al. One of ordinary skill in the art would be motivated to do so for providing a method for connecting between networks, a virtual router, and a system for connecting between networks by using this virtual router that make it possible to carry out a data forwarding even if a plurality of lines have been disconnected due to the occurrence of a trouble on a route among the lines connected to a virtual route (*as suggested by Yamaya et al., see para. [0009]*).

**Regarding claims 14, 15,** Ichinohe et al. do not disclose explicitly wherein the second router calculates the routing capability time based on a time required to set up connection to the external network or a time required to set up for a routing process.

Ichinohe et al. do not disclose explicitly wherein the second router calculates the routing capability time based on a time required to set up connection to the external network or a time required to set up for a routing process.



Yamaya et al. in the same field of endeavor teach wherein the second router calculates the routing capability time based on a time required to set up connection to the external network or a time required to set up for a routing process (*"the counting of the master down timer of the router 11 expires.....", "advertisement packet"; Fig. 9, para. [[0066], Fig. 10, paras. [0116] – [0118]]*).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Ichinohe et al. to include the features of wherein the second router calculates the routing capability time based on a time required to set up connection to the external network or a time required to set up for a routing process as taught by Yamaya et al. One of ordinary skill in the art would be motivated to do so for providing a method for connecting between networks, a virtual router, and a system for connecting between networks by using this virtual router that make it possible to carry out a data forwarding even if a plurality of lines have been disconnected due to the occurrence of a trouble on a route among the lines connected to a virtual route (*as suggested by Yamaya et al., see para. [0009]*).

**Regarding claim 6**, Ichinohe et al. disclose a router (*element 11, router, Fig. 1A, Fig. 1B*) comprising: a stop message receiving section for receiving a routing stop message (*"failure detection unit"; col. 9, lines 5 - 17, 32 – 65*), *except* indicating a routing stop time, as a time remaining until a stop of a routing function, from another router which is executing the router function; Ichinohe et al. also disclose a master transition deciding section for deciding whether or not the router is capable of executing the routing function when the message receiving section receives the routing stop

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message (*"management unit"*; col. 9, lines 5 – 17, 50 – 65); except a routing capability message generating section for generating a routing capability message notifying the time until the routing function is enabled; and a capability message transmitting section for transmitting the routing capability message to nodes in a local area network to which the router is connected.

Ichinohe et al. do not disclose explicitly indicating a routing stop time, as a time remaining until a stop of a routing function, from another router which is executing the router function; a transition time calculating section for calculating a routing capability time required to enable the routing function when the master transition deciding section decides that the routing function is capable of being executed; a routing capability message generating section for generating a routing capability message notifying the routing capability time; and a capability message transmitting section for transmitting the routing capability message to nodes in a local area network to which the router is connected.

Yamaya et al. in the same field of endeavor teach a routing stop time, as a time remaining until a stop of a routing function, from another router which is executing the router function (*Fig. 8, paras. [0061], [0062]*); a transition time calculating section for calculating a routing capability time required to enable the routing function when the master transition deciding section decides that the routing function is capable of being executed (*"the counting of the master down timer of the router 11 expires....."*, *"advertisement packet"*; *Fig. 9, para. [0066], Fig. 10, paras. [0116] – [0118]*); a routing capability message generating section for generating a routing capability message notifying the routing capability time (*"transmits a transition notification packet....."*; *para.*

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[0150]); and a capability message transmitting section for transmitting the routing capability message to nodes in a local area network to which the router is connected (Fig. 17, paras. [0138], [0150]).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Ichinohe et al. to include the features of a routing stop time, as a time remaining until a stop of a routing function, from another router which is executing the router function; a transition time calculating section for calculating a routing capability time required to enable the routing function when the master transition deciding section decides that the routing function is capable of being executed; a routing capability message generating section for generating a routing capability message notifying the routing capability time; and a capability message transmitting section for transmitting the routing capability message to nodes in a local area network to which the router is connected as taught by Yamaya et al. One of ordinary skill in the art would be motivated to do so for providing a method for connecting between networks, a virtual router, and a system for connecting between networks by using this virtual router that make it possible to carry out a data forwarding even if a plurality of lines have been disconnected due to the occurrence of a trouble on a route among the lines connected to a virtual route (as suggested by Yamaya et al., see para. [0009]).

**Regarding claim 7**, Ichinohe et al. disclose a router further including a status monitor section for monitoring the status of connection with an external network and deciding whether or not to cancel the connection (*"failure detection unit"*; Fig. 3, col. 14, lines 44 – 63); and a stop message transmitting section for transmitting the routing stop

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message to a node on a local area network to which the router is connected (*"a function stop indication"; col. 9, lines 42 – 65*).

Ichinohe et al. do not disclose explicitly a routing stop time calculating section for calculating the routing time remaining until routing stop when the status monitor section decides to cancel connection during execution of a routing function; a routing stop message generating section for generating a routing stop message giving the time calculated by the routing stop time calculating section.

Yamaya et al. in the same field of endeavor teach a routing stop time calculating section for calculating the time remaining until routing stop when the status monitor section decides to cancel connection during execution of a routing function; a routing stop message generating section for generating a routing stop message giving the time calculated by the routing stop time calculating section (*"the counting of the master down timer of the router 11 expires....."; Fig. 9, para. [0066]; Fig. 17, Fig. 18, paras. [0140] - [0144]*).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Ichinohe et al. to include the features of a routing stop time calculating section for calculating the time remaining until routing stop when the status monitor section decides to cancel connection during execution of a routing function; a routing stop message generating section for generating a routing stop message giving the time calculated by the routing stop time calculating section as taught by Yamaya et al. One of ordinary skill in the art would be motivated to do so for providing a method for connecting between networks, a virtual router, and a system for connecting between networks by using this virtual router that make it possible to carry

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out a data forwarding even if a plurality of lines have been disconnected due to the occurrence of a trouble on a route among the lines connected to a virtual route (*as suggested by Yamaya et al., see para. [0009]*).

**Regarding claim 8**, the combined system of Ichinohe et al. and Yamaya et al. discloses a router further including a buffer for storing a message to be sent to the external network, received from the local area network to which the router is connected after the stop of routing function (Ichinohe et al. , *"MIB memory unit"; Fig. 18A, Fig. 18B, col. 30, lines 58 – 67, col. 31, lines 1 – 15*), and a capability message receiving section for receiving a routing capability message from another router, whereby, when the routing capability message is received, the message stored in the buffer is transmitted to the source router which was the source of the message (*Yamaya et al., "transmits a transition notification packet....."; para. [0150]*).

**Regarding claim 10**, Ichinohe et al. do not disclose, wherein, if the routing stop time in the routing stop message received is equal to or smaller than a predetermined time, it is decided that the router which was the source of the routing stop message is under transition into a stop of routing function.

Yamaya et al. in the same field of endeavor teach wherein, if the routing stop time in the routing stop message received is equal to or smaller than a predetermined time, it is decided that the router which was the source of the routing stop message is under transition into a stop of routing function (*Fig. 17, Fig. 18, paras. [0140] - [0144]*).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Ichinohe et al. to include the features of wherein, if the routing stop time in the routing stop message received is equal to or

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smaller than a predetermined time, it is decided that the router which was the source of the routing stop message is under transition into a stop of routing function as taught by Yamaya et al. One of ordinary skill in the art would be motivated to do so for providing a method for connecting between networks, a virtual router, and a system for connecting between networks by using this virtual router that make it possible to carry out a data forwarding even if a plurality of lines have been disconnected due to the occurrence of a trouble on a route among the lines connected to a virtual route (*as suggested by Yamaya et al., see para. [0009]*).

**Regarding claim 12**, Ichinohe et al. disclose a terminal (*Fig. 1A, Fig. 1B*) comprising: a terminal receiving section for receiving a routing stop message (*"failure of the route....",,,, "supplies a function stop indication"; col. 9, lines 5 – 17, lines 42 – 65*, except indicating a routing stop time, as a time remaining until a stop of a routing function from a first router currently executing the routing function, and a routing capability message indicating a routing capability time calculated by a second router, the routing capability time being a time required to enable the routing function by a second router and Ichinohe et al. also disclose a router switch section for switching a communication to be sent to an external network from the first router over to the second router by a timing depending upon the routing stop message and routing capability message received by the terminal receiving section (*"routing module"; Fig. 1A, Fig. 1B, Fig. 3, col. 9, lines 42 – 65, col. 10, lines 12 – 33, col. 14, lines 45 – 63*).

Ichinohe et al. do not disclose explicitly indicating a routing stop time, as a time remaining until a stop of a routing function from a first router currently executing the routing function, and a routing capability message indicating a routing capability time

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calculated by a second router, the routing capability time being a time required to enable the routing function by a second router.

Yamaya et al. in the same field of endeavor teach explicitly indicating a routing stop time, as a time remaining until a stop of a routing function from a first router currently executing the routing function (*Fig. 8, paras. [0061], [0062]*); a routing capability message indicating a routing capability time calculated by a second router, the routing capability time being a time required to enable the routing function by a second router (*"the counting of the master down timer of the router 11 expires....."...* "advertisement packet"; *Fig. 9, para. [0066], Fig. 10, para. [0116]- [0118].;*

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Ichinohe et al. to include the features of indicating a routing stop time, as a time remaining until a stop of a routing function from a first router currently executing the routing function, and a routing capability message indicating a routing capability time calculated by a second router, the routing capability time being a time required to enable the routing function by a second router as taught by Yamaya et al. One of ordinary skill in the art would be motivated to do so for providing a method for connecting between networks, a virtual router, and a system for connecting between networks by using this virtual router that make it possible to carry out a data forwarding even if a plurality of lines have been disconnected due to the occurrence of a trouble on a route among the lines connected to a virtual route (*as suggested by Yamaya et al., see para. [0009]*).

**Regarding claim 13**, the combined system of Ichinohe et al. and Yamaya et al. discloses wherein the switching by the router switch section occurs after the lapse of the

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routing stop time and a lapse of the routing capability time (*Yamaya et al.*; *Fig. 8, paras. [0061], [0062]*); *Fig. 9, para. [0066]*).

7. Claims 9, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinohe et al. (6148411) in view of Yamaya et al. (US 20020184387 A1) as applied to claim 6, 7 above, and further in view of Flinck et al. (US 7099326 B2).

**Regarding claim 9**, the combined system of Ichinohe et al. and Yamaya et al. discloses wherein the routing stop message is a router advertisement message, the routing stop message is sent to the nodes in the Local Area Network (*see Yamaya et al., paras [0140], [0141]*).

The combined system of Ichinohe et al. and Yamaya et al. does not disclose advertisement message of ICMPv6 and has the routing stop time set in the lifetime field.

Flinck et al. in the same field of endeavor disclose a router advertisement message of ICMPv6 and has the routing stop time set in the lifetime field ("*ICMPv6*"; "*valid lifetime*"; *Fig. 5, Fig. 6, Fig. 8, col. 4, lines 59 – 66, col. 5, lines 34 – 57*).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Ichinohe et al. and Yamaya et al. to include the features of wherein the routing stop message is a router advertisement message of ICMPv6 and has the routing stop time set in the lifetime field as taught by Flinck et al. One of ordinary skill in the art would be motivated to do so for providing a plurality of routers constituting a virtual router perform routing function concurrently based on dynamically set a packet condition for defining the routing object by each router (*as suggested by Flinck et al., see para [0014]*).



**Regarding claim 11**, the combined system of Ichinohe et al. and Yamaya et al. discloses wherein the routing stop message is a router advertisement message and the routing capacity message is sent to the nodes in the Local Area Network (*"advertisement packet"; see Yamaya et al., paras [0140], [0141]*).

The combined system of Ichinohe et al. and Yamaya et al. does not disclose a router advertisement message of ICMPv6 and the time required until routing function is enabled is set in the reachable time field.

Flinck et al. in the same field of endeavor disclose a router advertisement message of ICMPv6 and the time required until routing function is enabled is set in the reachable time field (*"ICMPv6", "valid lifetime"; Fig. 5, Fig. 6, Fig. 8, col. 4, lines 59 – 66, col. 5, lines 34 – 57*).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Ichinohe et al. and Yamaya et al. to include the features of a router advertisement message of ICMPv6 and the time required until routing function is enabled is set in the reachable time field as taught by Flinck et al. One of ordinary skill in the art would be motivated to do so for providing a plurality of routers constituting a virtual router perform routing function concurrently based on dynamically set a packet condition for defining the routing object by each router (*as suggested by Flinck et al., see para [0014]*).

### ***Response to Arguments***

8. Applicant's arguments filed on 08/06/2009 with respect to claims 2 – 15 have been fully considered but they are not persuasive.

Rejection of Claims 2-8, 10 and 12-13 under 35 U.S.C. §103(a)

Regarding claim 2, applicant argues reference Yamaya et al. paragraphs [0141]-[0144] are completely silent regarding anything relating to time periods and in particular, "a routing capability time," as required by claim 2. Furthermore, paragraph [0140] merely discloses the conventional use of a master down timer and an advertisement timer. Neither the master down timer nor the advertisement timer relate to a routing capability time that is required to enable a routing function. Moreover, Yamaya is silent regarding transmission of a time in the advertisement message to other nodes on the local area network. Instead, the master down timer and advertisement timer begin counting after receiving a message, but the message itself does not include a time (i.e. a routing capability time).

In response to applicant's remark/argument, examiner respectfully disagrees.

Examiner contends reference Yamaya et al. teaches "a routing capability time," and transmission of a time in the advertisement message to other nodes on the local area network. Examiner interpreted "a routing capability time" as the counting of the master down timer of the router expires", see para. [0066], [0061], and interpreted "transmission of a time in the advertisement message to other nodes on the local area network" as transmits an advertisement packet to a router....", paras. [0116] – [0018].

Regarding Claims 6 and 12, applicant the argues Claims 6 and 12, which include similar but not identical features to those of claim 2, are submitted to patentably distinguish over Ichinohe in view of Yamaya for at least similar reasons of those of claim 2.

In response to applicant's remark/argument, examiner respectfully disagrees. Examiner contends the combined system of Ichinohe et al. and Yamaya et al. teaches all the claim subject matters as addressed in claim 2 above.

Regarding Claims 9 and 11, applicant then argues the addition of Flinck does not overcome the deficiencies of Ichinohe in view of Yamaya. This is because, Flinck, at the portion cited by the Examiner to teach that a router advertisement message of ICMPv6 has a routing stop time set in the lifetime field, merely discloses that a Router Lifetime should contain the frequency with which the mobile node receives information from Routing Area Updates, that no Reachable Time field should be set and that the Retrans timer contains the value that has been assigned for the Ready Timer Function inherent to GPRS Mobility Management. Flinck, however, is silent regarding "a routing capability time that is required to enable the routing function," as required by claim 6.

In response to applicant's remark/argument, examiner respectfully disagrees.

Examiner contends the combined system of references Ichinohe et al. and Yamaya et al. teaches "a routing capability time that is required to enable the routing function," , see Yamaya et al., "the counting of the master down timer of the router 11 expires....."..."advertisement packet"; Fig. 9, para. [0066], Fig. 10, para. [0116]- [0118], while reference Flinck remedies the deficiencies of references Ichinohe et al. and Yamaya et al. by disclosing the limitation of advertisement message of ICMPv6 and the lifetime field, see Flinck, *"ICMPv6", "valid lifetime"; Fig. 5, Fig. 6, Fig. 8, col. 4, lines 59 – 66, col. 5, lines 34 – 57.*

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a) Ioele et al. (US 20020073337 A1).
- b) Schroeder et al. (5088091).
- c) Garg et al. (US 6865591 B1).

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571)272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2476

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/Andrew C Lee/

Examiner, Art Unit 2476

<1Qy10:11/30/2009>

/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2476